

CLAIM AMENDMENTS

1. (currently amended) A system for controlling transmission of data packets through an information network, ~~each data packet comprising a content portion, a header, and a trailer~~, the information network having a plurality of user workstations communicatively coupled to a network access point (NAP), said system comprising:

a Regional Transaction Processor (RTP); and

a Data Enabling Device (DED), said DED being disposed at the NAP and

communicatively coupled to the RTP, said DED containing content match information and operable to:

inspect at least [[the]] content portions of data packets, each data packet comprising a content portion, a header, and a trailer, transiting the NAP;

forward an inspected data packet when information within the content portion of a data packet is not substantially similar to content match information; and

when information within the content portion of an inspected data packet is substantially similar to content match information, temporarily store the inspected data packet, initiate issuance of a DED message to a recipient user workstation, and invoke the RTP to process a transaction; wherein:

the RTP transmits an RTP message to the DED authorizing forwarding of the data packet only when a result of the transaction indicates that forwarding is appropriate;

the system further comprises a plurality of DED's, at least one intermediate DED
operable to forward the DED message to a DED closest, within the information
network, to the recipient user workstation;
the plurality of DED's are operable to communicate with each other to prevent
transmitting more than one DED message for the same data packet within the
information network;
processing a transaction is based on a user response to the DED message; and
the RTP transmits one of a Release Content message and a Cease Content message to
the DED, based on the result of the transaction.

2. (previously presented) The system as set forth in claim 1, wherein the transaction is based on control information associated with the content match information.

3. (previously presented) The system as set forth in claim 1 wherein the DED's detection of data packets including content match information is performed at a rate proportional to the rate at which the data packets are received by the DED.

4. (canceled)

5. (previously presented) The system as set forth in claim 1 wherein the RTP comprises a network server and a database, and is operable to process requests for content.

6. (canceled)

7. (previously presented) The system as set forth in claim 1, further comprising a plurality of NAPs along a network route, wherein each NAP has an associated DED operable to communicate with at least one of the other DEDs.

8. (currently amended) The system as set forth in claim 7 wherein:
a first NAP includes a first DED for generating a DED message;~~and~~
~~the system comprises at least one intermediate DED operable to forward the DED~~
~~message to a DED closest, within the information network, to the recipient user workstation.~~

9. (canceled)

10. (canceled)

11. (previously presented) The system as set forth in claim 1, wherein the DED includes Field Programmable Gate Arrays (FPGAs).

12. (previously presented) The system as set forth in claim 11 wherein the FPGAs are reprogrammed over the network to perform a content matching function.

13. (previously presented) The system as set forth in claim 11 wherein a portion of the DED is dynamically reprogrammed, and the DED is operable to continue processing data packets during the dynamic reprogramming.

14. (previously presented) The system as set forth in claim 1, further comprising a Central Storage and Backup System (CSBS) operable to communicate with the RTP, to monitor operation of the RTP, and to store transaction information.

15. (previously presented) The system as set forth in claim 14, wherein the CSBS is operable to transmit information to reprogram the DED to communicate with another RTP.

16. (previously presented) The system as set forth in claim 1, further comprising a content matching server operable to store content match information, to communicate with the DED, and to transmit the content match information to the DED.

17. (previously presented) The system as set forth in claim 1 wherein the DED is operable to suspend transmission of data packets through the information network until a user response to a prompt is received.

18. (currently amended) A method for controlling transmission of data packets through an information network, each data packet comprising a content portion, a header, and a trailer, the information network having a plurality of user workstations communicatively coupled to a network access point (NAP), said method comprising:

inspecting at least [[the]] content portions of data packets transiting the NAP with a data

Enabling Device (DED), said DED being disposed at the NAP and

communicatively coupled to a Regional Transaction Processor (RTP), said DED

containing content match information;

forwarding an inspected data packet when information within the content portion of the inspected data packet is not substantially similar to content match information;
and

when information within the content portion of an inspected data packet is substantially similar to content match information, temporarily storing the inspected data packet, issuing a ~~prompt~~ DED message to a recipient user workstation, and invoking the RTP to process a transaction; wherein:

the information network comprises a plurality of DED's, at least one intermediate DED operable to forward the DED message to a DED closest, within the information network, to the recipient user workstation; and the method further comprises: transmitting a message among the plurality of DED's to prevent transmitting more than one DED message for the same data packet; processing the transaction based on a user response to the DED message; and transmitting a Release Content or Cease Content message to the DED based on whether content was authorized to be downloaded to the workstation as part of the transaction.

19. (currently amended) The method as set forth in claim 18, wherein the ~~[[prompt]]~~ DED message is based on control information associated with the content match information.

20. (canceled)

21. (currently amended) The method as set forth in claim 18, further comprising processing a transaction based on a response to the [[prompt]] DED message received from the recipient user workstation.

22. (canceled)

23. (canceled)

24. (previously presented) The method as set forth in claim 18, further comprising reprogramming a portion of the DED to detect different content match information.

25. (currently amended) The method as set forth in claim 18, further comprising suspending transmission of a data packet through the information network until a user response to the [[prompt]] DED message is received.

26. (currently amended) A computer-readable storage medium [[product]] comprising program instructions to implement the method of claim 18.

27. - 53. (canceled)

54. (previously presented) The system as set forth in claim 1 wherein the DED is further operable to search data packets for content match information to determine whether transmission of data packets containing particular content should be unconditionally prevented, and when the

DED finds such content match information, the DED prevents, without additional processing, forwarding of data packets containing said particular content.

55. (previously presented) The system as set forth in claim 1, wherein a content provider supplies transaction instructions to the RTP for use by the RTP when processing a transaction when the DED finds content match information in a data packet.

56. (currently amended) The system as set forth in claim 55, wherein the instructions include transmitting a transaction [[prompt]] DED message to the recipient user workstation informing of a price to pay for content in a data packet, and allowing the user to accept or decline purchase of the content.

57. (previously presented) The system as set forth in claim 55, wherein the instructions specify transmitting a prompt to inform a user that content infected with a virus is attempting to be transmitted from or received by the recipient user workstation, and that transmission or reception of the virus is being halted.

58. (previously presented) The system as set forth in claim 55 wherein the instructions include transmitting a prompt to the recipient user workstation to inform that content subject to security control is attempting to be transmitted from or received by the recipient user workstation, and that transmission or reception of the content is being halted.

59. (previously presented) The system as set forth in claim 1, wherein the RTP tallies statistics regarding transmission of designated content.